



September 2009

# Army Industrial Hygiene News and Regulatory Summary

This information is published by the Industrial Hygiene and Medical Safety Management (IHMSM) for the U.S. Army Center for Health Promotion and Preventive Medicine as a service to the Army Industrial Hygiene Program, Federal agencies, and industrial hygienist throughout the Federal and private sector.

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## TOPIC OF THE MONTH

### Carbon Monoxide - The Silent Killer

By: CPT Ruben I. Ortiz, HQTRs CO, 1st Medical Brigade,  
Fort Hood, Texas

As the weather turns colder, many of us will rely on furnaces and portable heaters to stay warm. Some will also unknowingly invite a killer into their home.

The winter months are when individuals are most at risk for carbon monoxide (CO) poisoning. Known as the “silent killer,” CO is a colorless, odorless, tasteless, and nonirritating gas. It kills more people annually in the United States than any other type of poisoning.

Carbon monoxide is produced from the incomplete combustion of wood, coal, oil, kerosene, natural gas, gasoline and propane. People are also poisoned when they heat their homes with outdoor grills, hibachis or gas ovens with the oven door opened. The poisonous gas emitted from burning fuels or from car exhaust can build up very quickly and overcome you without warning, even in areas that seem to be well ventilated.

At lower levels, the initial symptoms of CO poisoning may include fatigue, headache, dizziness, nausea, visual disturbances, irritability and confusion. Unfortunately, diagnosis is problematic because these symptoms are nonspecific and may be mistaken for the flu or food poisoning. If you experience any of these symptoms in your home but feel better when you go outside — and then find the symptoms reappear once you're back inside — you may have CO poisoning.

Use of trademarked names does not imply endorsement by the U.S. Army but is intended only to assist in identification of a specific product.

## TOPIC OF THE MONTH (con't)

As exposure levels increase, the symptoms of CO poisoning become more severe. At moderate levels, individuals may experience tightness across the chest, severe headaches, dizziness, drowsiness, and nausea. Prolonged or high exposures may result in vomiting, confusion, muscle weakness, collapse, and even death. Earlier this year, a Soldier and his wife were found dead in their home as a result of CO poisoning. The police investigation into the deaths revealed the home had high levels of CO.

Many of the deaths from CO poisoning might have been prevented with regular maintenance of heating systems and the installation of CO detectors. There are a variety of CO detectors on the market, and all monitor the air for high levels of CO. The CO detector is designed to detect CO from any source, but it will not detect smoke, fire or any other gas.

For safety's sake, homes with portable heaters or gas or oil furnaces should have at least one CO detector. The device should be installed near sleeping areas. Additional detectors should be placed in living areas or near, but not in, the furnace room. The detector should be in an area where everyone in the house will hear it — even those sleeping. The Environmental Protection Agency (EPA) warns, however, that CO detectors should never be considered as a replacement for properly using and maintaining fuel-burning appliances.

If you suspect you are experiencing CO poisoning, get fresh air immediately. Open the windows and doors for more ventilation, turn off any combustion appliances and leave the house. Once away from the source of exposure, seek prompt medical attention and call your fire department for CO detection. For more information about CO poisoning prevention, visit the EPA's Web site at [www.epa.gov](http://www.epa.gov).

FYI

To reduce your chances of carbon monoxide (CO) poisoning, take the following precautions:

- Have your fuel-burning appliances such as furnaces, water heaters, ranges, ovens, dryers, space heaters, fireplaces and wood stoves inspected and serviced by a trained professional before the onset of cooler temperatures.
- Purchase appliances that vent fumes to the outside of your home. Have those appliances installed and maintained by professionals. Ensure you read, understand and follow the safety precautions for each of these appliances.
- Never sleep in a room with an unvented fuel-burning space heater.
- Never use a gas oven to heat your home — even for a short period of time.

*Source: Knowledge,*

[https://safety.army.mil/knowledge\\_online/september2009/TheSilentKiller/tabid/1379/Default.aspx](https://safety.army.mil/knowledge_online/september2009/TheSilentKiller/tabid/1379/Default.aspx)

<p>"The views expressed in this article are those of the author and do not reflect the official policy of the Department of the Army, Department of Defense, or the U.S. Government."</p>
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# KEY INDUSTRIAL HYGIENE TOPICS

## Ergonomics

### **Embracing Vendor Relationships to Improve Quality**

by Sharon Wilson, Industrial Hygiene Technician, RRAD, and John Pentikis, Ergonomist, USACHPPM

The word ergonomics has the same meaning in any textbook on the subject; what is different is how people apply ergonomics. The goals of ergonomics are consistent in that we all try to:

- Identify ergonomic risk factors that expose a worker to a work-related musculoskeletal disorder (WMSD).
- Develop solutions to minimize or eliminate the risk factors.
- Remove the risk from the employees daily work activities.

*Although installations and agencies may take similar identification steps, risk removal steps can be approached in different ways.* At Red River Army Depot (RRAD), we have thousands of employees doing physically demanding work in an effort to quickly and efficiently overhaul light and medium weapons systems and deliver them back to Soldiers in the field.



To read the full article, go to:

<http://www.ergoworkinggroup.org/ewgweb/SubPages/ProgramTools/Publications/2005Pubs/96DODEWGNews.pdf>

### **Ergonomics Case Study: Revised NIOSH Lifting Equation Instruction Issues for Students**

This case study investigated the effectiveness of formal instruction of the Revised NIOSH Lifting Equation for university students who may use the equation in their future work. Their successes and challenges were examined through a class exercise and two exams, all of which followed the classroom instruction in applying the Lifting Equation. Results showed students (1) had difficulty determining relevant values for task variables from reading a job description, and (2) generally were able to calculate the Recommended Weight Limit (RWL) and Lifting Index (LI) when task variables were such that the associated multipliers were less than or equal to 1. However, when the multiplier was calculated to be greater than 1, students had difficulty interpreting the result. The task variable and multiplier (consistently the greatest challenge) were the asymmetry task variable, A, and the asymmetric multiplier, AM. Results indicate that the layout of the Job Analysis Worksheet for Step 1 may make it easy to make arithmetic errors when calculating multipliers. It is recommended that the worksheet be redesigned to help individuals decrease the probability of making an arithmetic error when calculating the task variables, multipliers, RWL, and LI. It is also recommended that the redesigned worksheet be tested to determine whether fewer arithmetic errors are made and if the worksheet is less confusing for an inexperienced user to use.

*Source: Journal of Occupational and Environmental Hygiene, Volume 6, Issue 11 November 2009 (Available with AIHA membership)*

## KEY INDUSTRIAL HYGIENE TOPICS (con't)

### IAQ

#### **Assessment of Exposure to Secondhand Smoke at Outdoor Bars and Family Restaurants in Athens, Georgia, Using Salivary Cotinine**

Exposure to secondhand smoke (SHS) in outdoor settings is a growing public health concern due to recent indoor smoking bans. The objective of this study was to measure salivary cotinine, a metabolite of nicotine, in subjects aged 21-30 exposed to SHS outside bars and restaurants in Athens, Georgia. Nonsmokers participated during 6-hr periods in outdoor standing or seating areas of bars and restaurants where indoor smoking was banned, as well as a control outdoor location with no smokers over six weekends during the summer and early fall of 2007. Pre- and post-exposure saliva samples (N = 25 person-days at the bar site, N = 28 person-days at the restaurant site, and N = 11 person-days at the control) were collected and analyzed for cotinine. The mean change in the response, (ln(post) - ln(pre)) salivary cotinine levels, was significantly impacted by the type of site (bar, restaurant, control) (F = 5.09; d.f. = 2, 6.7; p = 0.0455). The median percent increase in salivary cotinine from pre-test to post-test was estimated to be 162%, 102%, and 16% at the bar, restaurant, and control sites, respectively, values that were significant increases at bars (t = 4.63; d.f. = 9.24; p = 0.0011) and restaurants (t = 4.33; d.f. = 4.47; p = 0.0097) but not at the control sites. On average, these pre-test to post-test increases in salivary cotinine were significantly higher at bar sites than control sites (t = 3.05; d.f. = 9.85; p = 0.0176) and at restaurant sites compared with control sites (t = 2.35; d.f. = 5.09; p = 0.0461). Nonsmokers outside restaurants and bars in Athens, Georgia, have significantly elevated salivary cotinine levels indicative of secondhand smoke exposure.

*Source: Journal of Occupational and Environmental Hygiene, Volume 6, Issue 11 November 2009. (Available with AIHA membership)*

#### **Mold in Water Damaged Environments**

Mycotoxins are toxic, secondary metabolites frequently produced by molds in water-damaged indoor environments. We studied the prevalence of selected, potent mycotoxins and levels of fungal biomass in samples collected from water-damaged indoor environments in Sweden during a 1-year period. One hundred samples of building materials, 18 samples of settled dust, and 37 samples of cultured dust were analyzed for: (a) mycoflora by microscopy and culture; (b) fungal chemical marker ergosterol and hydrolysis products of macrocyclic trichothecenes and trichodermin (verrucarol and trichodermol) by gas chromatography-tandem mass spectrometry; and (c) sterigmatocystin, gliotoxin, aflatoxin B1, and satratoxin G and H by high performance liquid chromatography-tandem mass spectrometry. Sixty-six percent of the analyzed building materials samples, 11% of the settled dust samples, and 51% of the cultured dust samples were positive for at least one of the studied mycotoxins. In addition, except in the case of gliotoxin, mycotoxin-positive building material samples contained 2-6 times more ergosterol than mycotoxin-negative samples. We show that (a) molds growing on a range of different materials indoors in water-damaged buildings generally produce mycotoxins, and (b) mycotoxin-containing particles in mold-contaminated environments may settle on surfaces above floor level. The mass spectrometry methods used in this study are valuable tools in further research to survey mycotoxin exposure and investigate potential links with health effects.

*Source: Journal of Occupational and Environmental Hygiene, Volume 6, Issue 11 November 2009. (Available with AIHA membership)*

## KEY INDUSTRIAL HYGIENE TOPICS (con't)

### PPE

#### Army Says New Earplugs Will Save Your Hearing

A next-generation earplug designed to make it easier for troops to protect their eardrums will soon hit the war zone. The challenge for leaders is getting every soldier to wear the plugs. The new Combat Arms Earplug is made of the same washable plastic as the current earplug and has the same “triple flange” construction to keep it in place. But instead of removing the plug to operate a dial that regulates the amount of sound entering the ear canal, the new earplug uses a rocker switch that is operated without removing the earplug.



Source: [http://www.armytimes.com/news/2009/09/army\\_ear\\_protection\\_090509w/](http://www.armytimes.com/news/2009/09/army_ear_protection_090509w/)

#### OSHA PPE Final Rule

OSHA is issuing this final rule to revise the personal protective equipment (PPE) sections of its general industry, shipyard employment, longshoring, and marine terminals standards regarding requirements for eye- and face-protective devices, head protection, and foot protection. OSHA is updating the references in its regulations to recognize more recent editions of the applicable national consensus standards, and is deleting editions of the national consensus standards that PPE must meet if purchased before a specified date. In addition, OSHA is amending its provision that requires safety shoes to comply with a specific American National Standards Institute (ANSI) standard, and a provision that requires filter lenses and plates in eye- protective equipment to meet a test for transmission of radiant energy specified by another ANSI standard. In amending these paragraphs, OSHA will require this safety equipment to comply with the applicable PPE design provisions. These revisions are a continuation of OSHA's effort to update or remove references to specific consensus and industry standards located throughout its standards. This final rule will become effective on October 9, 2009.



Source: <http://edocket.access.gpo.gov/2009/E9-21360.htm>

#### Assigned Protection Factors for the Revised Respiratory Protection Standard

A new guidance document, publication #3352-2009, provides employers with information for selecting respirators for employees exposed to contaminants in the air.

Source: <http://www.osha.gov/Publications/3352-APF-respirators.pdf>

#### IOM Panel Recommends N95 Respirators to Protect Against H1N1 Flu

An Institute of Medicine committee is recommending health care workers wear fitted N95 respirators to protect against the novel H1N1 influenza virus and has endorsed the Centers for Disease Control and Prevention's current guidelines -- taking a position supported by occupational safety and health stakeholders. CDC says it



## KEY INDUSTRIAL HYGIENE TOPICS (con't)

will review the IOM panel's report over the next few weeks but hasn't indicated how the recommendations will factor into its upcoming decision on whether to revise its interim H1N1 guidance for health care settings.

The IOM committee delivered its letter report, "Respiratory Protection for Healthcare Workers in the Workplace Against Novel H1N1 Influenza A," to CDC Director Thomas Frieden and Acting OSHA chief Jordan Barab, the sponsors of the project, on Sept. 1.

Source: *Inside OSHA*, September, 2009 (Accessed via DENIX, registration required);

<https://www.denix.osd.mil/portal/page/portal/denix/publications/InsideOSHA/osha09142009.html>

### **Hazardous Substances**

#### **Beryllium**

##### **NIST Develops New Beryllium Reference Material for Occupational Safety Monitoring**

Researchers at the National Institute of Standards and Technology (NIST), in collaboration with private industry and other government agencies, have produced a new reference material for beryllium that more closely mimics the form of beryllium workers are exposed to in the field.

Beryllium, an exotic, rare-earth metal used as a hardener in high-performance alloys and ceramics, can cause berylliosis – a chronic, incurable and sometimes fatal illness. Beryllium is used in the nuclear industry and in the manufacture of aircraft and supercolliders.

The new Standard Reference Material, Beryllium Oxide Powder (SRM 1877), consists of high-fired crystalline beryllium oxide that has been thoroughly characterized physically and chemically. The new reference material is expected to dramatically improve methods used to monitor workers' exposure and aid in contamination control as well as toxicological research.

According to NIST scientists, previous analytical tests for exposure monitoring relied on an easily dissolved form of beryllium that was not representative of what people would be exposed to in the field. The new SRM mimics the form of beryllium to which workers would be exposed much more closely and should facilitate much more representative and informative toxicological studies, more sensitive monitoring and more effective clean-up of contaminated areas. . For more information, see NIST's SRM Web page:

<http://ts.nist.gov/measurementservices/referencematerials/>.

#### **Dinitrotoluene (DNT)**

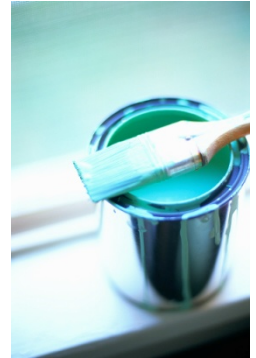
The Citizens for Safe Water Around Badger conducted a technical review of a 1990 Army study evaluating the potential uptake of DNT by deer and determined the study was "inconclusive", not able to confirm or deny whether it is safe to eat deer from Badger Army Ammunition Plant. See [http://www.cswab.org/deer\\_study.html](http://www.cswab.org/deer_study.html)

## KEY INDUSTRIAL HYGIENE TOPICS (con't)

### Lead

#### **Lead-Laden Paint Still Widely Sold Around the World**

Even as the US lowers the lead levels allowed in paint dramatically, paint with dangerously high lead levels is still being sold for household use worldwide, putting hundreds of millions of young children at risk of permanent brain damage, research out this month in the journal *Environmental Research* shows. The sale of new paint containing more than 600 parts per million (ppm) of lead has been banned since 1978 in the US, which just this month dropped the permissible lead level in new paint to 90 ppm. While China, Singapore, and South Africa recently introduced limits on the lead content of household paints (and India has instituted a voluntary standard), there's strong evidence that high lead paint is still being sold in these and other countries, and used to paint homes, schools, toys and even playgrounds.



Source: *Reuters*, <http://www.reuters.com/article/healthNews/idUSTRE57O64G20090825>

#### **Lead Levels in Bone Confirmed As More Accurate Predictor of Mortality**

Harvard School of Public Health research confirms the widely held belief that lead levels found in bone, rather than blood, are a more accurate indication of mortality from exposure to the metal.

The study found that the risk of death from cardiovascular disease was almost six times higher in study participants with the highest levels of bone lead, compared to those with the lowest levels. Harvard says it is the first time the link between bone lead and human mortality has been analyzed.

Construction and home renovation workers, such as painters, paint removers, and sanders, are commonly exposed to lead in paint, especially when working with paints that predate 1978 when the Consumer Product Safety Commission issued more stringent limits on permissible lead levels. Workers in smelting and battery manufacturing plants can also be exposed to hazardous levels of lead.

Lead levels are commonly determined by taking blood samples. Lead in blood has a half-life of only 30 days, however, meaning blood levels only give a window of a few months of exposure. By contrast, because bone is the repository of lead in the human body, it can show long-term, cumulative exposure over many years, allowing for a very strong association between lead levels and cardiovascular mortality.

By the time lead has been deposited in bone, the damage has been done to the body. It's not easy to bring bone lead down, and it may not be that bringing the bone lead down is going to reverse the effects that have already occurred.

Further research could, however, be useful in determining long-term exposure risks in different kinds of work environments. Bone tests could also be used to determine whether workers with elevated blood lead levels are still at risk for longer-term cardiopulmonary disease.

## KEY INDUSTRIAL HYGIENE TOPICS (con't)

As the science of bone lead analysis continues to develop, it could also be used prospectively to measure the progression of disease. Exposure to lead can result in increased mortality from malignant neoplasms, chronic renal disease, and other causes, according to a 2007 Department of Health and Human Services fact sheet.

Source: <https://www.denix.osd.mil/portal/page/portal/denix/publications/osh/osh20090924.html#A0C0D7X9U5>

### EPA to Reconsider Monitoring Requirements

EPA will reconsider some of its lead air pollution monitoring requirements, the agency stated in a press release. Even at low levels, lead exposures can damage a child's IQ, learning and memory.

When EPA revised its air quality monitoring requirements for lead in 2008, it also tightened the national air quality standards for lead for the first time in 30 years. The current rule requires air quality monitoring in areas where any industry emits at least one ton of lead to the air each year, and in the 101 U.S. urban areas with populations of 500,000 or more.

EPA will also consider whether additional monitoring near industrial sources of lead is warranted. The agency clarified that it is not reconsidering the lead standards. A proposal for public review and comment was scheduled to be released in the summer. The agency anticipates that a final rule will be issued in 2010.

Source: [http://www.aiha.org/news-pubs/synergist/Documents/09Sept\\_Synergist.pdf](http://www.aiha.org/news-pubs/synergist/Documents/09Sept_Synergist.pdf)

### Mercury

#### Blood Mercury Levels Rising among U.S. Women

A study involving more than 6,000 American women suggests that blood levels of mercury are accumulating over time, with a big rise noted over the past decade. Using data from the U.S. Centers for Disease Control and Prevention's National Health and Nutrition Examination Survey (NHANES), a researcher from the University of California, Los Angeles, found that while inorganic mercury was detected in the blood of 2 percent of women aged 18 to 49 in the 1999-2000 NHANES survey, that level rose to 30 percent of women by 2005-2006. The study found compelling evidence that inorganic mercury deposition within the human body is a cumulative process, increasing with age and overall in the population over time. The findings also suggest a rise in risks for disease associated with mercury over time. The findings come on the heels of a widely publicized report, released by the U.S. Geological Survey, which found that 25 percent of fish sampled from rivers and streams have unsafe levels of mercury.

Source: [http://www.nlm.nih.gov/medlineplus/news/fullstory\\_88506.html](http://www.nlm.nih.gov/medlineplus/news/fullstory_88506.html)

## DEPLOYMENT HEALTH AND SAFETY

### Drug Resistant Bacteria Found in Returning Wounded Service Members

A new study suggests that Military Health System hospitals and treatment facilities may be vulnerable to multidrug resistant (MDR) bacteria, but says there is no cause for alarm. The study was conducted by a team of



## DEPLOYMENT HEALTH AND SAFETY (con't)

doctors from Brooke Army Medical Center, the Uniformed Services University of the Health Sciences and the Infectious Disease Clinical Research Program. Researchers found indications that certain bacteria are developing drug resistances and may be able to survive in military hospitals. Service members should not be scared of MDR bacteria. Civilian and military hospitals place significant emphasis on protecting patients from being exposed to multidrug resistant bacteria during inpatient admissions through aggressive infection control measures. Published in the June 2009 issue of Military Medicine, the study recommends that the Military Health System place a “continued emphasis on infection control” and calls for “novel strategies” to fight infections, especially in war zones.

Source: <http://www.health.mil/Press/Release.aspx?ID=909>

## PREVENTIVE MEDICINE ISSUES

### Morbidity and Mortality at Work

Workplace suicides rose from 196 cases in 2007 to 251 cases in 2008, an increase of 28% and the highest number ever reported by the U.S. Bureau of Labor Statistics' Census of Fatal Occupational Injuries (CFOI). Because suicidal behavior is generally multicausal in nature, determining the motivation for suicidal behavior is extremely challenging. Data such as those reported by CFOI can serve as the basis for further research to address such challenges. For more information, see An Analysis of Workplace Suicides, 1992–2001 at <http://www.bls.gov/pub/cwc/sh20040126ar01p1.htm>

### Showerheads May Deliver Blast of Bacteria



If the shower scene in Alfred Hitchcock's Psycho scared you, here's another reason to scream: A new study says that potentially disease-causing germs can get trapped in showerheads and grow into biofilm, or coats of slime that deliver a bacteria blast along with your hot water. Although the classic horror film gave legions of moviegoers a fear of showering, the new study shouldn't do the same, experts say. The bacteria probably don't pose a threat to most people, although they could be problematic for those with weakened immune systems. Showerheads are dark, wet, and warm -- the ideal environment for bacteria that cause lung diseases to thrive.

As we turn on the faucet to get clean, the showerhead may spray our bodies and the air around us with such opportunistic bugs as Mycobacterium avium and other germs known as non-tuberculosis mycobacteria, according to the new research in the Proceedings of the National Academy of Sciences.

Source: <http://www.cnn.com/2009/HEALTH/09/14/showerhead.bacteria/index.html>

### All-Hazards Preparedness and Environmental Health CD

National Environmental Health Association has put together a compilation of the best all-hazards preparedness/response articles from its widely respected and peer-reviewed Journal of Environmental Health. This CD contains 25 articles covering different areas of preparedness, such as environmental health's role, lessons learned, training, and chemical/biological preparedness. Also included on the CD is a page of preparedness Web

## PREVENTIVE MEDICINE ISSUES (con't)

site links. Easy-to-use, packed full of useful and practical information, inexpensive, and created just for the environmental health profession.

For ordering go to <http://www.neha.org/store/EHBUNDLE1.html>

## SAFETY

### Army Safety and Occupational Health Objectives for FY 2010

General George Casey, Jr. U.S. Army Chief of Staff and Pete Geren, Secretary of the Army, outlined their safety and occupational health objectives for FY '10 by focusing on four objectives. These are:

Objective One: Off-Duty Loss Reduction. This is a two part objective to reduce off-duty accidental loss of young soldiers driving sedans and leaders riding motorcycles.

Objective Two: On-Duty Loss Reduction. Over 50% of Army on-duty fatalities occur while members are operating or riding in a government vehicle. Inexperienced and inadequate training of the driver or crew are the most prevalent factors.

Objective Three: Civilian Injury Reduction. DA civilians continue to be more and more essential to the Army's ability to accomplish the mission both in CONUS and overseas. On-the-job civilian injury results in lost work time that significantly affects readiness.

Objective Four: Accident Reporting. Only a fraction of Army accidents get reported. Accurate and timely accident reporting is essential to developing preventive measures, As we transform Army safety culture, accident reporting must not be viewed as a report card but as an essential element of commanders' critical information requirements.

Source: <https://safety.army.mil/LinkClick.aspx?fileticket=WBmciT2apO8%3d&tabid=353>

### GAO Recommends Single Federal Agency to Develop Lab Safety Training Standards

The Government Accountability Office recommended the federal government place a single agency in charge of strategic evaluation of the nation's high-containment laboratories, including developing safety training standards for lab workers.

The recommendation comes one week after the death of a research professor at the University of Chicago, who died from what investigators confirmed was a lab-acquired infection he contracted while conducting research on a weakened strain of the plague bacteria *Yersinia pestis*.

The GAO report, *High-Containment Laboratories-National Strategy for Oversight is Needed*, examined the increase of high-containment laboratories in the United States, the federal agencies responsible for tracking their expansion and determining their risks, and the lessons investigators have learned from four highly-publicized incidents at separate laboratories.

## SAFETY (con't)

The president's national security advisor should name a lead agency to evaluate the laboratories, the report said. In addition, the secretaries of the Departments of Health and Human Services and Agriculture should develop clear definitions of exposure to select agents as well as develop mechanisms for sharing lessons learned from laboratory accidents so best practices can be developed, the report said.

Both HHS and Agriculture maintain lists of biological agents and toxins that have the potential to pose a severe threat to public health and safety, animal or plant health, or animal or plant products.

Centers for Disease Control and Prevention regulations require all registered facilities that possess, use or transfer select agents that pose a threat to public health safety to maintain written biosafety plans and provide training on biosafety to their workers, the report said. The exact number of high-containment laboratories in the country is unknown, however, because no single federal agency tracks them.

The GAO report, *High-Containment Laboratories-National Strategy for Oversight is Needed*, is available at <http://www.gao.gov/new.items/d09574.pdf>

### Preventing Risks to Young Workers: Policy, Program and Workplace Practices

Young workers (15–24 years) are a very vulnerable group when it comes to occupational safety and health (OSH). However, the majority of OSH risks are preventable — whether they involve young or older workers — by applying the principles of risk assessment and putting in place the necessary preventive measures. To support information exchange on best practice, the European Agency for Safety and Health at Work has produced a report about how the occupational safety and health of young workers can be managed at policy and practice level. The report includes a variety of case studies and also identifies some success factors for prevention.

Source: [European Agency for Safety and Health at Work](#)

## INDUSTRIAL HYGIENE PROFESSIONAL NEWS

### ANSI/ASSE

NEW - Z359 Fall Protection Code Version 2.0

Version 2.0 Updates Include:

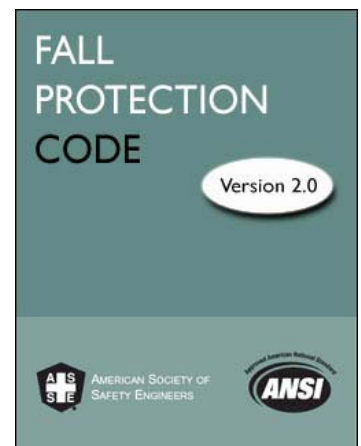
#### **ANSI/ASSE Z359.6-2009**

*Safety Requirements for Personal Fall Arrest Systems (PFAS)*

This Standard is intended for engineers with expertise in designing fall-protection systems. It specifies requirements for the design and performance of complete active fall-protection systems, including travel-restraint and vertical and horizontal fall-arrest systems.

#### **ANSI/ASSE Z359.12-2009**

*Connecting Components for Personal Fall Arrest Systems*



This standard establishes requirements for the performance, design, marking, qualification, test methods and removal from service of connectors.

### **ANSI/ASSE Z359.13-2009**

#### *Personal Energy Absorbers and Energy Absorbing Lanyards*

This standard establishes requirements for the performance, design, marking, qualification, instructions, inspection, maintenance and removal from service of energy absorbing lanyards and personal energy absorbers. It is the intention of this standard to require all energy absorbing lanyards and personal energy absorbers to reduce the forces implied on the user to less than 10 G's (10 times the normal gravitational pull of the Earth). Users must be within the range of 130 to 310 lbs (59 - 140 kg.).

To order: <https://www.asse.org/cartpage.php?link=z359-v2>

## **DOL**

### **DOL Cites Opposition from Public in Withdrawal of Risk Assessment Rule**

Citing comments in opposition from worker advocacy organizations, labor unions, and risk assessment experts, the U.S. Department of Labor (DOL) has withdrawn a controversial risk assessment rule that critics charged would have unnecessarily delayed rulemaking to protect workers from toxic substances. The American Industrial Hygiene Association (AIHA) opposed both the substance of the rule and the DOL's determination to proceed without allowing additional public comment.

In August 2008, DOL published a notice of proposed rulemaking intended to codify the DOL's risk assessment procedures for health standard rulemakings that address workplace exposure to toxic substances. The proposal would have required DOL agencies to (1) issue an advanced notice of proposed rulemaking (ANPR) for every health standard involving toxic substances or hazardous chemicals, apart from emergency temporary standards; (2) post documents related to a rulemaking on the Internet; and (3) discard the assumption of a 45-year working life per worker in favor of industry-by-industry exposure data.

Opponents contended that the ANPR requirement would delay rulemaking, that a 2002 law already required department agencies to post information related to rulemaking on the Internet, and that a reliance on industry-by-industry data would underestimate worker exposures. The DOL declined requests from members of Congress to hold public hearings on the proposed rule and declined to extend the 30-day public comment period.

In extensive comments on the final rule, AIHA had stated that the proposed approach could result in increased exposure to workplace toxins based on assumptions that do not accurately reflect workplace conditions or worker experience. AIHA is also concerned that the DOL has not solicited input from those individuals who have wide-ranging expertise in evaluating worker exposure from chemicals and toxins, including industrial hygienists.

The rule was withdrawn on August 31, 2009.

Source: ACGIH *Today* (membership required)

### NIOSH

#### **NIOSH Report Released on Control Banding**

A new NIOSH report reviews the published literature on “control banding,” describes potential control-banding strategies, and suggests areas where additional research is needed.

Source: <http://www.cdc.gov/niosh/docs/2009-152/>

#### **National Academies Releases Prepublication Copy of NIOSH Research Evaluation**

The National Academies released a prepublication copy of the report *Evaluating Occupational Health and Safety Research Programs: Framework and Next Steps*. The report culminated the process of independent reviews of eight NIOSH research programs. NIOSH will closely review the report, which discusses lessons learned in the process of evaluating research programs. The prepublication copy of the report is available online from the National Academies at <http://www.iom.edu/CMS/3740/28457/72627.aspx>

#### **Howard Returns to NIOSH with Proactive Risk Proposal in Hand**

Newly tapped NIOSH chief John Howard has proposed a "proactive" approach to managing risks in emerging technologies, including qualitative risk assessment, voluntary cooperation by employers and stakeholder involvement, among other elements. Howard recently told Inside OSHA that risk management would be one his priorities as he returned to the top agency post, suggesting some of the ideas he has detailed recently might forecast his efforts.

Source: *Inside OSHA*, September, 2009 (Accessed via DENIX, registration required);

<https://www.denix.osd.mil/portal/page/portal/denix/publications/InsideOSHA/osha09142009.html>

### OSHA

#### **Howard Says He Hopes to Improve OSHA, NIOSH Collaboration**

John Howard hopes to improve NIOSH's collaboration with OSHA in his newly reclaimed position as NIOSH chief, a slot he had been forced to relinquish when the Bush administration opted against renewing his appointment. Howard says his return to NIOSH comes at a time when OSHA is planning an active agenda and provides a great opportunity for the two agencies to collaborate on a number of projects, including nanotechnology.

Source: *Inside OSHA*, September, 2009 (Accessed via DENIX, registration required);

<https://www.denix.osd.mil/portal/page/portal/denix/publications/InsideOSHA/osha09142009.html>